

Intelligent Tutoring Systems Panel

Remarks by Vincent Aleven

1. Why haven't more organizations adopted the use of intelligent technology-enabled instructional environments?
 - ITS authoring technology is ready for widespread use
 - Tools must be easy to learn/use, and there must be support for doing so
 - Tutors must interface easily with simulations, learning management systems, etc.
2. How can technology-enabled individual instruction try to compensate for a lack of a social presence?
 - Embed ITSs in a social environment (e.g., peer sharing, help, and feedback)
 - Design ITSs to support collaborative learning (e.g., peer tutor tutor)
 - Imbue teachable agents with social intelligence
3. How could we design a persistent student model .. shared among different instructional applications?
 - Make systems honor each others' badges; use EDM to know what badge is worth
4. How can ITS-like training environments be created for team training?
 - Create virtual team members (experts, novices, teachable agents)
 - Create pedagogical dialogue agents that guide collaborators
5. What R&D is needed to create ITS for ill-defined domains?
 - Help learners get used to the fact that criteria are to a degree subjective
 - Make ITS (or ped. agents, students) critique student work from alternative viewpoints
 - Focus on comparing and contrasting cases